U.S. Landfill Protocol

Project Data Report

The Project Data Report (PDR) Template must be completed for each verification period. This template is only intended as a guide and provides the minimum required information to be reported. This template is designed for use with the U.S. Landfill Protocol V6.0 (US LP). The project developer has the option to include additional information at their discretion.

Please note that this document will be made publicly available once the project has registered credits the verification cycle. If there is proprietary information, please provide a redacted version for publication and a non-redacted version for internal review. Please contact the Reserve to discuss what information may be allowed to be redacted.

Account Holder	3Degrees Group, Inc.
Project ID and Name	CAR443 South Kent Landfill Gas to Energy Project
Cooperative/Aggregate ID (if applicable)	
Current Reporting Period Dates	3/1/2024-2/28/2025
Protocol Version	U.S. Landfill V6.0
Claimed CRTs by Vintage	2024: 161,179 2025: 38,669
Date Submitted	12/23/2025

1 Introduction

Provide a general description of the project, including location, baseline scenario, project activity, etc.

The South Kent County Gas to Energy Project (Project ID: CAR443) captures methane gas from a municipal solid waste facility, located at 10300 S Kent Drive SW in Byron Center, Michigan. The Project registered with the Climate Action Reserve (denoted as "the Reserve" or CAR hereafter) for emission reductions from the first crediting period from July 10, 2008 through July 9, 2018. The Project is now in its second crediting period that spans July 10, 2018 through July 9, 2028. The Project monitoring procedures and emission reduction calculations are all performed in accordance with CAR's Landfill Project Reporting Protocol version 6.0 (hereafter referred to as "the Protocol").

The South Kent Landfill municipal solid waste facility began accepting waste in 1982. The Landfill is owned and operated by Kent County Department of Public Works. The landfill currently accepts about 175,000 tons of waste per year.

Prior to the projct start, there was no landfill gas collection system, and all gas was vented to the atmosphere.

2 Project Definition

a Project Definition

Provide information on whether the project is an expansion of an existing landfill project or is being submitted as a new project, the type of destruction device (e.g. utility flares, enclosed flares, engines, turbines, microturbines, boilers, pipelines, leachate evaporators, kilns, sludge dryers, burners, furnaces, or fuel cells), default or site-specific destruction efficiency values, and whether landfill gas is destroyed onsite or transported for offsite use. Supporting documentation must be provided to the verifier during each verification cycle, which may include project diagrams, LFG flow data, methane flow data, facility records, etc.

The project was submitted as a new project, with a gas collection and destruction system installed in 2008. In 2008, the landfill voluntarily installed an active gas collection system with an open flare, authorized under the new source review permit exemption in Michigan Air Pollution Control Rule 285(2)(aa). The landfill gas collection system was initiated with 24 wells and two horizontal connectors. With the addition of three horizontal collectors in 2009, eight additional wells in 2011, and four wells added in 2014, the system now consists of 48 wells and 10 horizontal connectors. In 2024 additional wells were added for a total of 66 gas wells and 17 horizontal collectors.

In 2008, Granger Electric (who was purchased by Energy Developments in August 2017) proposed to the MI DEQ the installation of a landfill gas to electricity generation plant, which included the installation of two Caterpillar model G3520C internal combustion engines. In August 2008, MI DEQ authorized this installation by issuing a Permit-to-Install. The engines have been online since installation in 2008, and the flare now serves a backup combustion device. An additional engine was installed in 2023. The landfill gas is destroyed onsite.

In all calculations, the project uses the default efficiency value of 0.96 for the open flare, the default efficiency value for a lean burn engine of 0.936 from 2/27/2025-2/28/2025, and a site-

specific value for the engines of 0.952 based on the most conservative value of the destruction efficiency testing conducted on 2/27/2024 and applied from 3/1/2024-2/26/2025.

b Project Developer

List the entities which have any amount of legal control over the project boundary and identify the mechanism through which the Account Holder has legal authority to implement the project. In addition, please state which entity will be designated as the project developer and will sign the Attestation of Title. If the Account Holder is not the entity listed on the facility's operating permit, explain how they obtain the right to operate the project on the facility's behalf.

3Degrees Group, Inc. ("3Degrees") owns full title to any Climate Reserve Tonnes (CRTs) issued at the South Kent Landfill for this reporting period. 3Degrees contracts with the Kent County Department of Public Works. The Attestation of Title signed by 3Degrees is available on the Reserve's online software.

3 Project Eligibility

a Project Location

Provide the project location.

The South Kent County Gas to Energy Project is located at 10300 S Kent Drive SW in Byron Center, Michigan.

b Project Start Date

Briefly describe the documentation used to demonstrate the date at which the GCCS system became operational, i.e., the date landfill gas was first destroyed in a project destruction device. Provide a description of the start-up testing period (destruction device, timeline, etc.), if applicable. Include what documentation will be provided to the verification body to demonstrate the commencement of methane destruction.

The Project has been registered under the Climate Action Reserve with a start date of July 10, 2008. This date is supported by the project's permit to install for the engines, dated 8/6/2008.

c Project Crediting Period

State the project's crediting period as defined in Section 3.2 of the Protocol.

7/10/2018 to 7/09/2028

d Additionality

i Performance Standard Test

Check the box below and provide a brief description of how the landfill gas destruction project meets the performance standard test as outlined in Section 3.4.1 of the protocol.

☒ Installation of a landfill gas collection and a new qualifying destruction device at an eligible landfill where landfill gas has never been collected and destroyed prior to the start date.

☐ Installation of a new qualifying destruction device at an eligible landfill where landfill gas is currently collected and vented, but has never been destroyed in any manner prior to the start date.

☐ Installation of a new qualifying destruction device at an eligible landfill where landfill gas was collected and destroyed at any time prior to the project start date using:

☐ A non-qualifying destruction device (e.g., passive flare)

☐ A destruction device that is not otherwise eligible under the protocol

☐ Installation of a new gas collection system on a physically-distinct cell (or cells) where neither gas collection nor destruction has previously occurred.

Description: Prior to the projct start, there was no landfill gas collection system, and all gas was vented to the atmosphere. The project consists of installation of a new lasnfill gas collection system and qualifying destruction device (open flare and engines).

ii Limits on Credit Stacking

Disclose if the project participates in carbon or other types of mitigation project types outside of the Reserve. If so, include a brief description of the project activity, the Registry in which the project is listed, and how the two projects do not result in double counting. Confirm that the Reserve and the other registry are aware of and provided approval for credit stacking. If no project stacking / credit stacking is occurring, state, "Not applicable."

Not applicable.

iii Legal Requirement Test

Attest that the project activities are not legally required. Identify any federal, provincial, or local regulations or legally binding mandates that are relevant to the project. State whether the project is subject to NSPS regulations and provide information regarding recent NMOC emission rate testing. Confirm that the landfill has not exceeded the NMOC threshold or provide the date at which the landfill is legally required to implement the GCCS.

The South Kent Landfill is not required under the federal regulations to install a gas collection and control system. The landfill is subject to the NSPS Standards for MSW Landfills under 40 CFR 60 Subpart XXX, and conducts Tier II testing.

The latest Tier II testing was performed in October 2024, with the highest estimated NMOC level being 20.4 Mg/year, well under the regulatory limit (Attachment 5).

e Social and Environmental Safeguards

i Social Safeguards

Confirm below that the project is in material compliance with all labor and safety laws for the verification period.

The project is in material compliance with all labor and safety laws for this verification period. More details have been provided in the Environmental and Social Safeguards Assessment Form.

ii Environmental Safeguards

Confirm below that the project was in material compliance with all environmental regulations during the reporting period, and how the project is designed and implemented in such a way to

mitigate potential releases of pollutants that may cause degradation of the quality of soil, air, and surface and groundwater. Provide a brief description of any environmental benefits or harms that have resulted from the project.

The project is in material compliance with all environmental regulations for this verification period. The project complies with the Clean Air Act and Clean Water Act to ensure that project activities do not increase the risk of potential releases of pollutants that may cause degradation of soil, air, and groundwater quality. Thus, the site holds a Title V Operating Permit, a Permit-to-Install two engines, a Solid Waste Permit and a Stormwater Permit. More details about environmental benefits have been provided in the Environmental and Social Safeguards Assessment Form. There have been no environmental harms that have resulted from the project implementation.

f Regulatory Compliance

Provide the national, provincial, and/or local regulatory agencies with jurisdiction over the project boundary. Disclose any instances of non-compliance during the reporting period. Describe how the project will monitor for compliance during future reporting periods.

The landfill is subject to NSPS regulations under the Clean Air Act (CAA), which is enforced under the Michigan Department of the Environment, Great Lakes, and Energy (MI EGLE).

3Degrees can assess compliance with relavent regulations via EPA's Enforcement & Compliance History Online (ECHO) online server of regulated facilities, including a report for Kent County Landfill. 3Degrees regularly checks this website and confers with site personnel to ensure ongoing regulatory compliance. The ECHO webpage for the South Kent Landfill reflects a CWA issue from June 2024, documented in Attachment 10a. The issue is related to leachate and surface water effluent discharge, and is ongoing until the pollutant concentration levels are found to be under the permitted discharge limits. Ongoing actions are being taken to remedy this issue. The ECHO webpage also reflects a CAA violation from 2012. While the EPA does not consider the violation resolved, MI DEQ considers the violation resolved upon entry into a Consent Order as of June 2013 (Attachment 10).

Per the CAR Program Manual Section 2.4.6, "a violation is considered to be 'caused' by a project or project activities if it can be reasonably argued that the violation would not have occurred in the absence of the project activities." Because the circumstances of these violations resulted independently from the project and would have occurred in the absence of the project activity, there was no applicable exclusion of credits from the period in which the violation occurred. Furthermore, these violations had no impact on the project activity nor the calculation of emissions reductions.

4 GHG Assessment Boundary

a GHG Assessment Boundary

The table below includes only the SSRs that are included in the project quantification. For all SSRs considered in the GHG Assessment Boundary (included and excluded GHGs and their justification) refer to Table 4.1 in the Protocol.

SSR	Source Description	Gas	Baseline (B) or Project (P)	Confirm each SSR is Included
4	Emissions from	CH_4	B,P	☒

	Waste Breakdown in Landfill			
5	Emissions from Gas Collection System	CO_2	P	☒
6	Emissions from Supplemental Fuel	CO_2, CH_4	P	☒
7	Emissions from Project LFG Boiler Destruction	CH_4	P	☐
	Emissions from Baseline LFG Boiler Destruction	CH_4	B	☐
8	Emissions from Project LFG Electricity Generation	CH_4	P	☒
	Emissions from Baseline LFG Electricity Generation	CH_4	B	☐
9	Emissions from Project LFG Flare Destruction	CH_4	P	☒
	Emissions from Baseline LFG Flare Destruction	CH_4	B	☐
10	Emissions from Upgrade of LFG	CO_2	B,P	☐
11	Emissions from Project LFG Pipeline or other NG end-use	CH_4	P	☐
	Emissions from Baseline LFG Pipeline or other NG end-use	CH_4	B	☐

5 Quantifying GHG Emission Reductions

a Quantifying Baseline Emissions

i Summary of Baseline Quantification

Provide the total methane destroyed by the GCCS, factor for the oxidation of methane by soil bacteria, discount factor to account for modeling uncertainties, and adjustment factor to account for baseline LFG destruction device in the verification period, as calculated in the Protocol.

Vintage: 2024	**Vintage:** 2025
Total methane destroyed: 6,550 tCH_4	Total methane destroyed: 1,584 tCH_4
Oxidation factor by soil bacteria: 0.1	Oxidation factor by soil bacteria: 0.1
Monitoring uncertainties discount factor: Flare: 0.1, Engine: 0	Monitoring uncertainties discount factor: Flare: 0.1, Engine: 0
Adjustment factor for baseline LFG destruction device: 0	Adjustment factor for baseline LFG destruction device: 0

Baseline Emissions: 161,181 tCO_2e	Baseline Emissions: 38,669 tCO_2e

b Quantifying Project Emissions

i Site-Specific Destruction Efficiency

Provide the name of the state or local agency accredited service provider utilized to conduct the site-specific destruction efficiency testing, as well as the date the test was conducted and the destruction efficiency used for quantification.

The site specific destruction efficiency testing was done by Impact Complianct & Testing on February 27, 2024. The lowest value of the three-test average for both engines was 95.2%, which is the value that was used for the calculations for this reporting period.

ii Summary of Project Emissions

Provide the total carbon dioxide emissions from the destruction of fossil fuel, total carbon dioxide emissions from the consumption of electricity from the grid, and the total quantity of emissions from supplemental natural gas in the verification period, as calculated in the Protocol.

Vintage: 2024	**Vintage:** 2025
Emissions from fossil fuel use: 0.22 tCO_2	Emissions from fossil fuel use: 0.00 tCO_2
Emissions from electricity use: 1.5 tCO_2	Emissions from electricity use: 0.2 tCO_2
Emissions from supplemental natural gas: 0 tCO_2	Emissions from supplemental natural gas: 0 tCO_2
Project Emissions: 1.73 tCO_2e	Project Emissions: 0.22 tCO_2e

c Final CRT Summary

Summarize the final result for determining the net GHG Reductions by vintage.

Vintage: 2024	**Vintage:** 2025
Baseline Emissions: 161,181 tCO_2e	Baseline Emissions: 38,224 tCO_2e
Project Emissions: 2 tCO_2e	Project Emissions: 0 tCO_2e
Total GHG Emission Reductions/Removals: 161,179 tCO_2e	Total GHG Emission Reductions/Removals: 38,669 tCO_2e

6 Project Monitoring

Check the boxes below and attest that project monitoring has occurred according to the Protocol. If requirements were not met, please list the date of variance request and fill out Section 7.

Have all monitoring and QA/QC requirements been met? ☒ Yes ☐ No

Have all field checks and calibrations been performed by a third-party? ☒ Yes ☐ No

Date of Variance Request, if applicable: N/A

7 Variance Request

If a variance was requested during the reporting period, provide a brief description of the rule/requirement in the protocol in question, the conditions of the determination, and the date of the variance request and determination.

Date of Variance Request:

Protocol Section and Rule/Requirement:

Description of how the project did not meet the protocol requirement above:

Date Reserve Issued Determination:

Variance Conditions:

8 Project Documentation

The following documents are required to be submitted for project registration. In cases where there is proprietary information, please provide unredacted and redacted versions. If additional documents were submitted, please include the document title and its associated file name.

Document	File Name
Project Diagram	South Kent County Landfill Project Diagram
Attestation of Title	CAR443 Attestation-Regulatory-Compliance-12-16-19
Attestation of Voluntary Implementation	CAR443 Attestation-Voluntary-Implementation-12-16-19
Attestation of Regulatory Compliance	CAR443 Attestation-Title-2023
Monitoring Plan	South Kent County CAR Monitoring Plan 2024_08
Project Contributions to the U.N. Sustainable Development Goals Report Tool (if applicable)	Kent SDG-Reporting-Tool-v2.0-1 2023-2024
Project Data Report (this document)	CAR443 Kent County US-Landfill-PDR
List of Findings	S. Kent Findings Updated
Variance Request (if applicable)	n/a